

State of Illinois  
Illinois Emergency Management Agency

# Resident Inspectors

## at Nuclear Power Stations

### **IEMA Inspections at Illinois Nuclear Power Plants**

About one-sixth of the world's electricity is generated by over 440 nuclear power reactors. The United States' 104 power reactors generate about 22 percent of the nation's electricity. In Illinois there are eleven operating commercial nuclear power reactors at six sites generating about 50 percent of the state's electricity. There are also three commercial nuclear power reactors no longer operating: two at Zion and one at Dresden. In addition, there is an inactive reprocessing facility near Morris, Illinois.

Several other reactors have previously operated in Illinois but are now shutdown or decommissioned. These include the first nuclear reactor in the world, located at the University of Chicago (CP1) and research reactors at Argonne National Laboratory and the University of Illinois at Champaign.

The Illinois Emergency Management Agency (IEMA) is required by Illinois law to conduct inspections at commercial nuclear power plants in Illinois. Compliance with Illinois statutes is achieved by two inspection programs. The first is the Resident Inspector Program, which places a state inspector from IEMA at each nuclear power plant in Illinois. The second inspection program is the Boiler and Pressure Vessel Code Compliance Program, which works to ensure that pressurized systems at nuclear power plants in Illinois meet state and federal standards and the American Society of Mechanical Engineers (ASME) Code.



**Resident Inspector Conducting Safety Inspections**

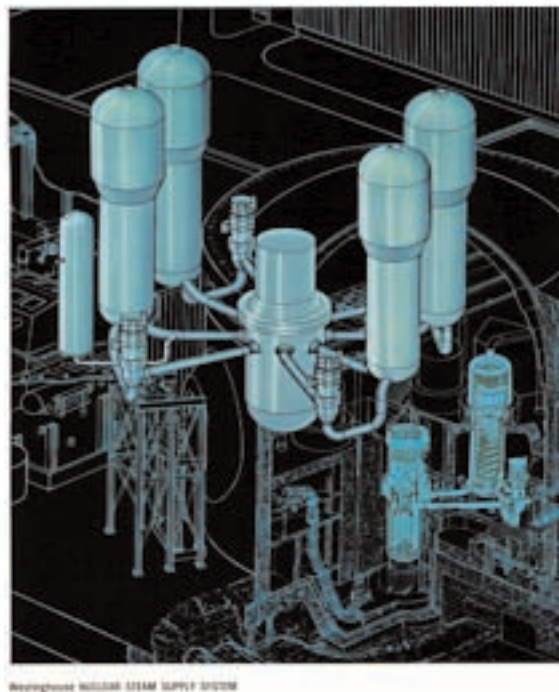
## **IEMA Resident Inspector Program**

The Illinois Emergency Management Agency (IEMA) Resident Inspector (RI) Program is responsible for conducting inspections at Illinois commercial nuclear power plants. The RI Program places a state inspector at each station.

The IEMA inspectors work closely with the Nuclear Regulatory Commission (NRC) site inspectors. All inspection activities are coordinated with the NRC and findings become part of the public NRC inspection reports.

IEMA Resident Inspectors also conduct quarterly joint inspections with the Illinois Environmental Protection Agency (IEPA). These inspections ensure compliance with state statutes and that radioactive releases are reported to the State.

During an accident, the state Resident Inspector will be at the power plant, gaining first-hand knowledge regarding system conditions, plans and actions to respond to the event. This valuable information is then communicated to the IEMA Radiological Emergency Assessment Center (REAC) where IEMA emergency team members use this input to determine public safety recommendations, such as having local citizens shelter in their homes or evacuate the area.



**Typical Components Inspected by a Resident Inspector**

## **Boiler and Pressure Vessel American Society of Mechanical Engineers (ASME) Code Compliance Inspection Program**

The IEMA Bureau of Nuclear Facility Safety has the responsibility to inspect and certify non-safety related pressure vessels at commercial nuclear power plants in Illinois. A Boiler and Pressure Vessel Code inspector ensures that power plant pressure vessels meet state and federal safety standards.

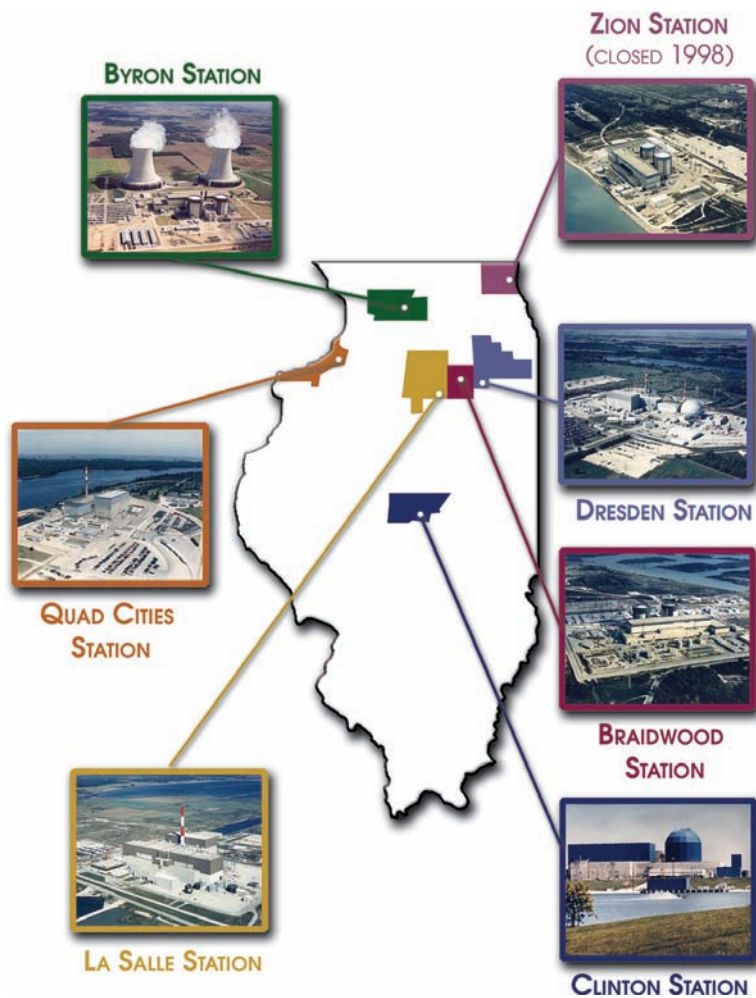
The Agency's inspection program covers approximately 2,000 boilers and pressure vessels located at the nuclear facilities in Illinois.

The IEMA ASME inspectors work closely with the Nuclear Regulatory Commission (NRC) inspectors. All inspection activities are coordinated and findings become part of the public NRC inspection reports.



**Conducting ASME Inspections**

# Nuclear Generating Facilities



For more information, please contact:

Illinois Emergency Management Agency  
Bureau of Nuclear Facility Safety

1035 Outer Park Drive  
Springfield, Illinois 62704  
217.785.9900 • TDD: 217.782.6133  
[www.iema.illinois.gov](http://www.iema.illinois.gov)